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SYNOPSIS OF THE AMERICAN SPECIES OF *VOLUCELLA* (SYRPHIDAE; DIPTERA)

BY C. H. CURRAN

PART I.—TABLE OF SPECIES

The genus *Volucella* Geoffroy is particularly rich in species in the Neotropical region and almost every collection of Syrphidae from the region contains new forms. Since the publication of the key in 1934[1] a number of new species have been described, some previously described species have been identified and many new ones have been received. As a result of the many additions to the Museum collection it has been possible to revise certain species groups which were previously ignored because of lack of material.

Some of the species groups are fairly well differentiated from the remaining species in the genus but there does not seem to be any way of definitely separating them on a generic basis. The presence or absence of scutellar depressions is not a satisfactory character since certain species occur which show traces of a depression while others that normally have a well-marked depression may show only a weak one in certain individuals The *picta* group is rather well marked, having the marginal cell bulbous apically and usually with a characteristic wing pattern, but this condition is approached by a number of species that obviously do not belong with *picta*. This group also has the lower rays of the arista much shorter than the upper.

In two or three species groups, including a large number of the smaller species, there exists a condition that is liable to cause a great deal of confusion. This has to do with the pale coloration. In life many of these species have greenish (not metallic) pale markings and their appearance is quite different from old specimens. The green color usually disappears in time, being replaced by reddish or yellowish, so that specimens described as having green face or other markings may eventually be found to have reddish or yellowish markings. The same variation exists in life, freshly hatched specimens being quite green, while older ones may show the reddish or yellow color that is typical of specimens that have been kept in collections for many years. The metallic green colors do not fade.

In the preparation of the key it has been necessary to omit almost all species not represented by specimens in the collection, due to the fact that the descriptions often omit characters essential in the preparation of a key.

The Museum is indebted to all who have contributed specimens of *Volucella*, and especially to Drs. C. L. Fluke and Harvey Bassler for the large amount of material donated. The types are all in the Museum collection.

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[1] Bull. Amer. Mus. Nat. History, LXVI, p. 379.

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Without clearly differentiated pair of prescutellars.....105.

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64*a*.—Wings yellowish on basal half or more; mesonotum with greenish opalescence. ..... *apicula*, new species.
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Face yellow-haired on either side of lowest third..... *aricia* Curran.
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Head not unusually large; facial tubercle present..... 73.
72.—Basal three sternites wholly pale..... ..... *escomelli* Curran.
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73.—Abdomen brownish black, shining; thorax cobalt-blue; legs castaneous; frontal triangle black pilose..... ..... *chaetophora* Williston.
Abdomen not wholly black, if so the frontal triangle pale pilose..... 74.
74.—Squamae white, the outer half of the lower lobe yellowish and very much thickened. ..... *vesiculosa* Fabricius.
Squamae differently colored and not thickened..... 75.
75.—Squamae with yellow border and fringe. 76.
Squamae with black border and fringe; abdomen black, the second and third segments usually largely yellow..... 79.
76.—Third and fourth abdominal segments with the basal third yellow pilose..... 77.
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83.—Sides of facial tubercle and of the mesonotum behind the suture, yellow pilose. ..... *persimilis* Williston.
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[1] Cf. *marceli*, new species.

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166.—Thorax in part, or at least the scutellum, yellow pilose.....
.....*bombylans plumata* De Geer.
Thorax and scutellum wholly black pilose (Europe).....*bombylans* Linnaeus.
167.—Antennae reddish.....168.
Antennae dark brown.....
.....*bombylans arctica* Johnson.
168.—Abdomen wholly black pilose beyond the second segment.....
.....*bombylans americana* Johnson.
Fourth segment with tawny pilose band.
.....*bombylans evecta* Walker.